

## ABSTRACT OF THE DISCLOSURE

An automatic transmission ratio shift control system and method for a  
5 powertrain having an engine and multiple-ratio gearing controlled by friction elements  
actuated by hydraulic pressure, an electronic controller for establishing torque  
transitions among the friction elements as the gear ratio changes, the engine speed  
being controlled by an electronic throttle control. The strategy employs an electronic  
throttle and closed loop engine speed control and uses fuel and air as an energy source  
10 to increase engine speed during a power-off downshift. The engine speed is boosted  
to a level close to the synchronous speed in conjunction with release of the off-going  
friction element. The on-coming friction element is then applied as the engine speed  
approaches a desired speed. The engine speed increase is timed to lead an increase in  
torque converter speed.

15